

MIAMI-DADE COUNTY, FLORIDA METRO-DADE FLAGLER BUILDING 140 WEST FLAGLER STREET, SUITE 1603 MIAMI, FLORIDA 33130-1563 (305) 375-2901 FAX (305) 375-2908

NOTICE OF ACCEPTANCE (NOA)

Mitsubishi Chemical America, inc. 401 Volvo Parkway Chesapeake, VA 23320

Scope:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: "Alpolic and Alpolic/FR" Composite Wall Panel Systems

APPROVAL DOCUMENT: Drawing No. 1, titled "Alpolic and Alpolic/fr Composite Wall Panel Systems", sheets 1 through 10 of 10, prepared by Mitsubishi Chemical America, Inc., signed and sealed by Christopher W. Stater, P.E., dated November 11, 2002, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: Small Missile Impact

LABELING: Each panel shall bear a permanent label with the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA # 00-0315.07 and consists of this page 1 as well as approval document mentioned above. The submitted documentation was reviewed by Helmy A. Makar, P.E.



NOA No 03-0130.06 Expiration Date: 08/09/2006 **Approval Date: 04/17/2003** Page 1

ALPOLIC and ALPOLIC/FR (FIRE RATED) COMPOSITE WALL PANEL SYSTEMS FOR FLORIDA BUILDING CODE SMALL MISSILE IMPACT

GENERAL NOTES

- 1. THESE ALPOLIC and APLOLIC/fr COMPOSITE PANELS SHALL BE USED FOR WALL CONSTRUCTION ONLY. EACH ACTUAL WALL PROJECT SHALL BE CONSTRUCTED USING THE DETAILS SHOWN ON THESE DRAWINGS AS MINIMUM REQUIRED SPECIFICATIONS.
- 2. THE WALL DESIGN ALLOWABLE PRESSURES FOR THESE WALL PANEL SYSTEMS ARE +70.0 PSF / -90.0 PSF

3. THESE ALPOLIC and APLOLIC/fr COMPOSITE WALL PANEL SYSTEMS ARE TESTED IN ACCORDANCE WITH THE FOLLOWING PROTOCOLS:
TAS-201-94, IMPACT TEST, SMALL MISSILE
TAS-202-94, UNIFORM STATIC AIR PRESSURE TEST
TAS-203-94, CYCLIC WIND PRESSURE TEST
AND THEY SHALL BE INSTALLED AS SHOWN IN THESE APPROVED DRAWINGS.

MATERIAL SPECIFICATIONS:

ALUMINUM EXTRUSIONS

- 1. MATERIAL: M2, F2, A2, HS, and HR ARE EXTRUDED ALUMINUM ALLOY 6063 WITH A T6 TEMPER. (By Kistler McDougall)
- 2. MATERIAL: CAY-1009 TEE, CAY-1010 FEMALE, CAY-1011 MALE, CAY-1012 STIFFENER AND CAY-1013 RETAINER ARE EXTRUDED ALUMINUM ALLOY 6063 WITH A T6 TEMPER (By CAY ARCHITECTURAL PRODUCTS)
- FINISH: MILL FINISH

COMPOSITE PANEL

- 1. ALPOLIC ALUMINUM COMPOSITE METAL PANEL 4MM THICK (0.157") AND 6MM THICK (0.236") AS MANUFACTURED BY MITSUBISHI CHEMICAL AMERICA, INC., CHESAPEAKE, VA
- 2. ALPOLIC/fr (FIRE RATED) ALUMINUM COMPOSITE METAL PANEL 4MM THICK (0.157")
 AS MANUFACTURED BY MITSUBISHI CHEMICAL FUNCTIONAL PRODUCTS, INC., UEDA, JAPAN
- 3. CORE: THERMOPLASTIC MATERIAL WHICH IN COMPOSITE ASSEMBLY MEETS PERFORMANCE CHARACTERISTICS SPECIFIED.
- 4. FACE SHEET: 0.020" ALUMINUM 3105-H14 ALLOY
- 5. FINISH: LUMIFLON-BASE FLUROPOLYMER RESIN COATING.
- 6. MAXIMUM DIMENSIONS: 62" WIDE X 288" LONG
- TECHNICAL DATA

| DESCRIPTION | TEST | 4MM ALPOLIC | 4MM ALPOLIC/fr | 6MM ALPOLIC |
|---|---|---|--|---|
| SPECIFIC GRAVITY WEIGHT TENSILE STRENGTH YIELD STRENGTH ELONGATION PUNCHING SHEAR RESISTANCE (1"DIA.) | ASTM E-8 ASTM E-8 ASTM E-8 ASTM D-732 | 1.38 1.12 LB/SQ.FT 7452 PSI NDY 16% 4025 PSI | 1.90 1.56 LB/SQ.FT 5693 PSI NDY 8% 4637 PSI | 1.23 1.50 LB/SQ.FT 5399 PSI NDY 13% 2816 PSI |
| PUNCHING SHEAR MAX LOAD BOND INTEGRITY VERTICAL PULL DRUM PEEL FLATWISE SHEAR | ASTM D-732 ASTM C-297 ASTM D-1781-76 ASTM C-273 | 1920 PSI 1806 PSI 33.6 IN-LB/IN 1225 PSI | 2259 PSI 427 PSI 27.6 IN-LB/IN 949 PSI | 2121 LBS 1664 PSI 33.6 IN-LB/IN 1195 PSI |
| RATE OF BURNING FLAME SPREAD INDEX SMOKE DEVELOPED INDEX | ASTM D-635 ASTM E-84 ASTM E-84 | CC1 00 00 | 00 10 | 00 10 |
| SELF IGNITION TEMPERATURE FLASH IGNITION TEMPERATURE SURFACE FLAMMABILITY SOUND TRANSMISSION | ASTM D-1929 ASTM D-1929 ASTM E-108-88 ASTM E-413 | 752°F 716°F PASSED STC-26 | 837°F 811°F PASSED | 752°F 716°F PASSED STC-26 |

FRAMING & ACCESSORIES

- 1. STEEL STUDS AND TRACKS: 16 GA. MIN. GALVANIZED STEEL WITH MIN. PROPERTIES OF 50 KSI YIELD, 65 KSI ULTIMATE.
- STUD & TRACK FASTENERS: #12 x 1-1/2" HEX WASHER HEAD TRAXX 3 BUILDEX SCREW.
- PANEL FASTENERS: #10 x 1" HEX WASHER HEAD TEK SCREWS SPACED AT 16" O.C.
- STIFFENER FASTENERS: #10 x 1" HEX WASHER HEAD TEK SCREWS.
- JOINT SILICONE: DOW CORNING #795 SILICONE SEALANT.
- STRUCTURAL SILICONE: DOW CORNING #1199 SILICONE SEALANT.
- BACKER ROD: 3/4" DIA, DENVER FOAM OPEN CELL BACKER ROD.
- THE STRUCTURAL ADEQUACY OF THE 16 GA. GALVANIZED STEEL STUDS AND THE REST OF THE STRUCTURAL FRAMING SUPPORTING THE METAL PANELS IS NOT PART OF THIS PRODUCT CONTROL APPROVAL AND IT SHALL BE REVIEWED BY THE STRUCTURAL PLANS EXAMINER OF THE CORRESPONDING BUILDING DEPARTMENT.

DO NOT SCALE DRAWING

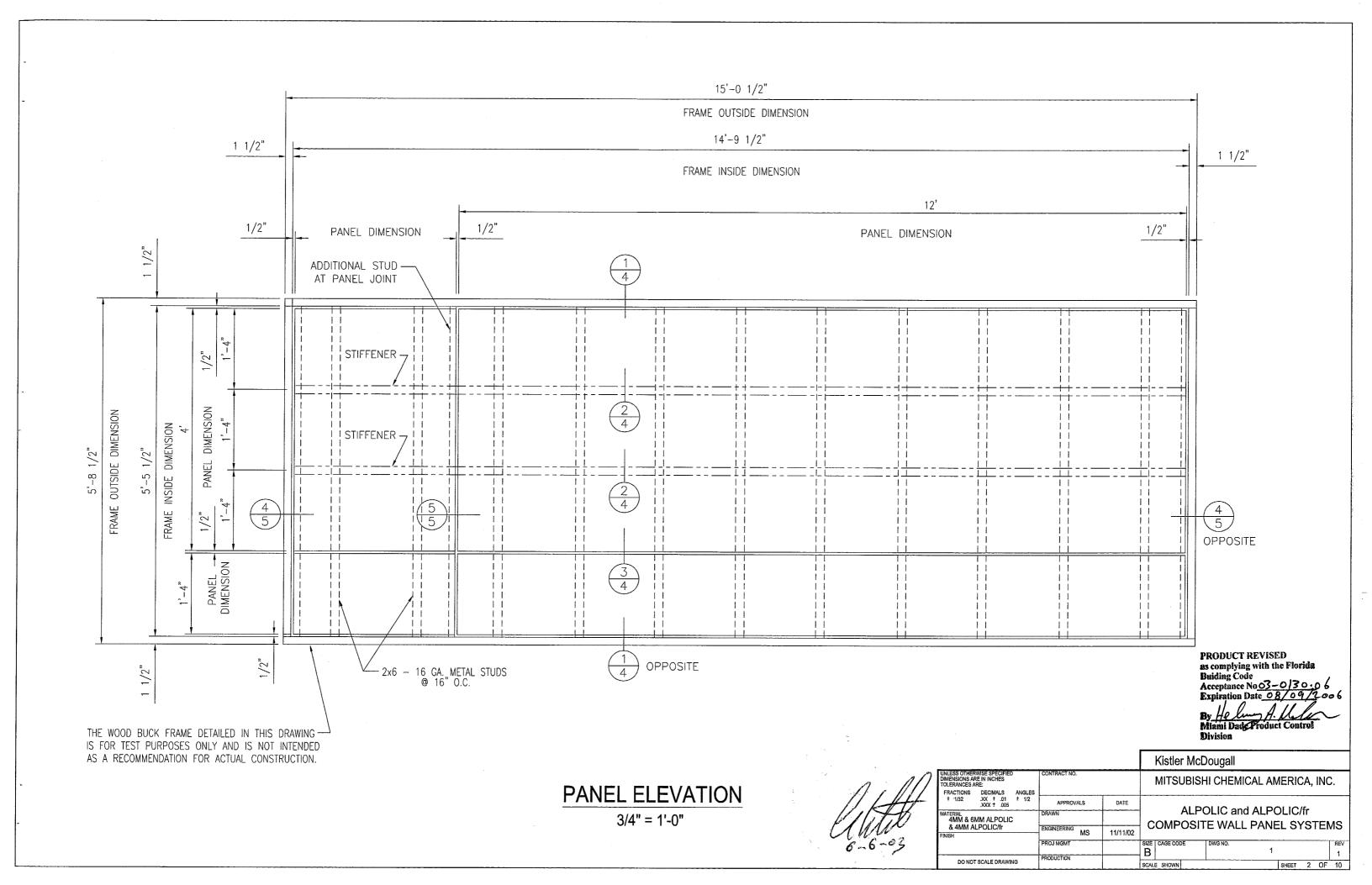
PRODUCT REVISED
as complying with the Florida
Buiding Code
Acceptance No 03 - 0/30 · 0 6
Expiration Date 08/09/70 0 6
By Land A. Marie Date Product Control
Division

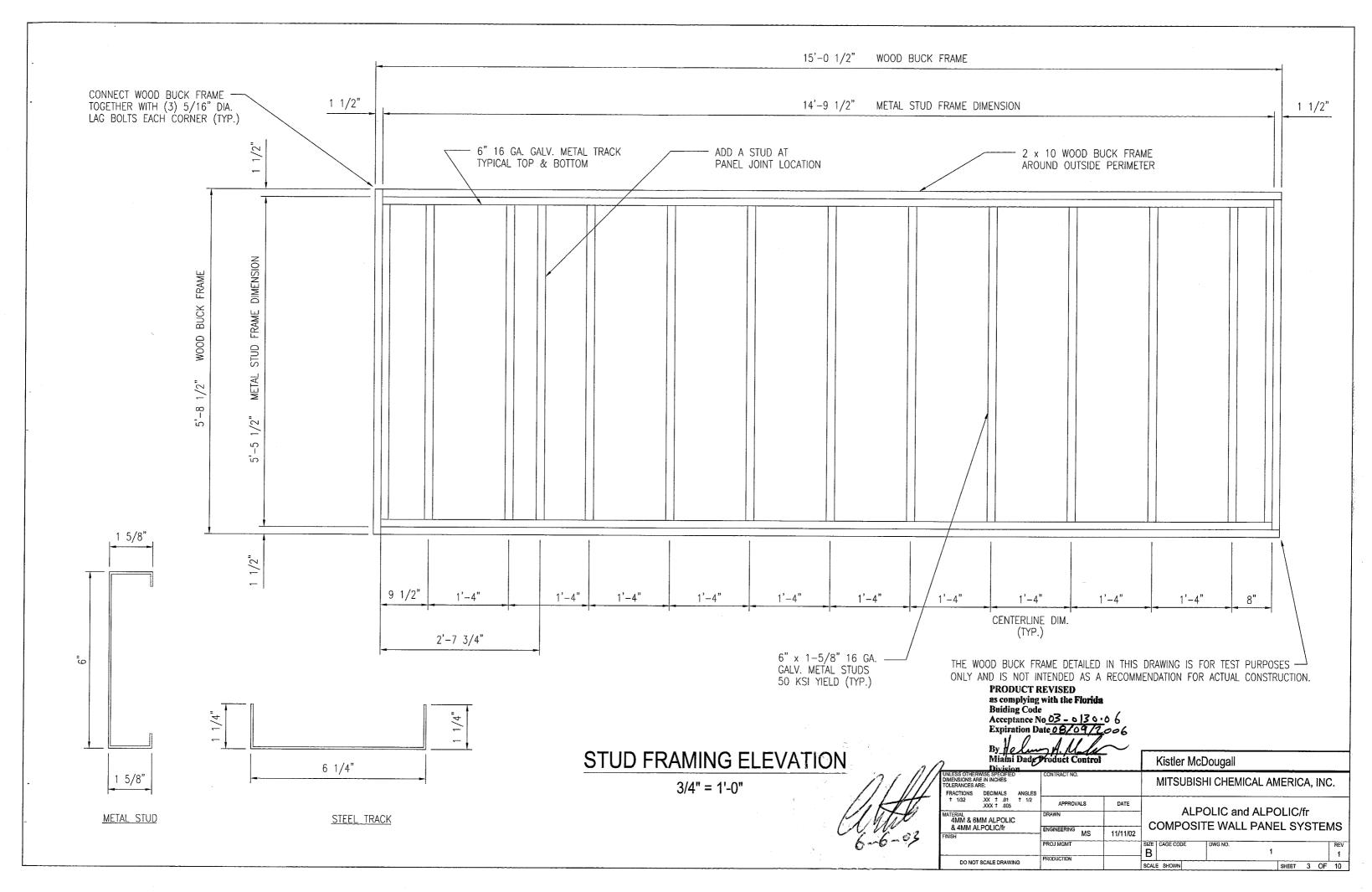
SHEET 1 OF 10

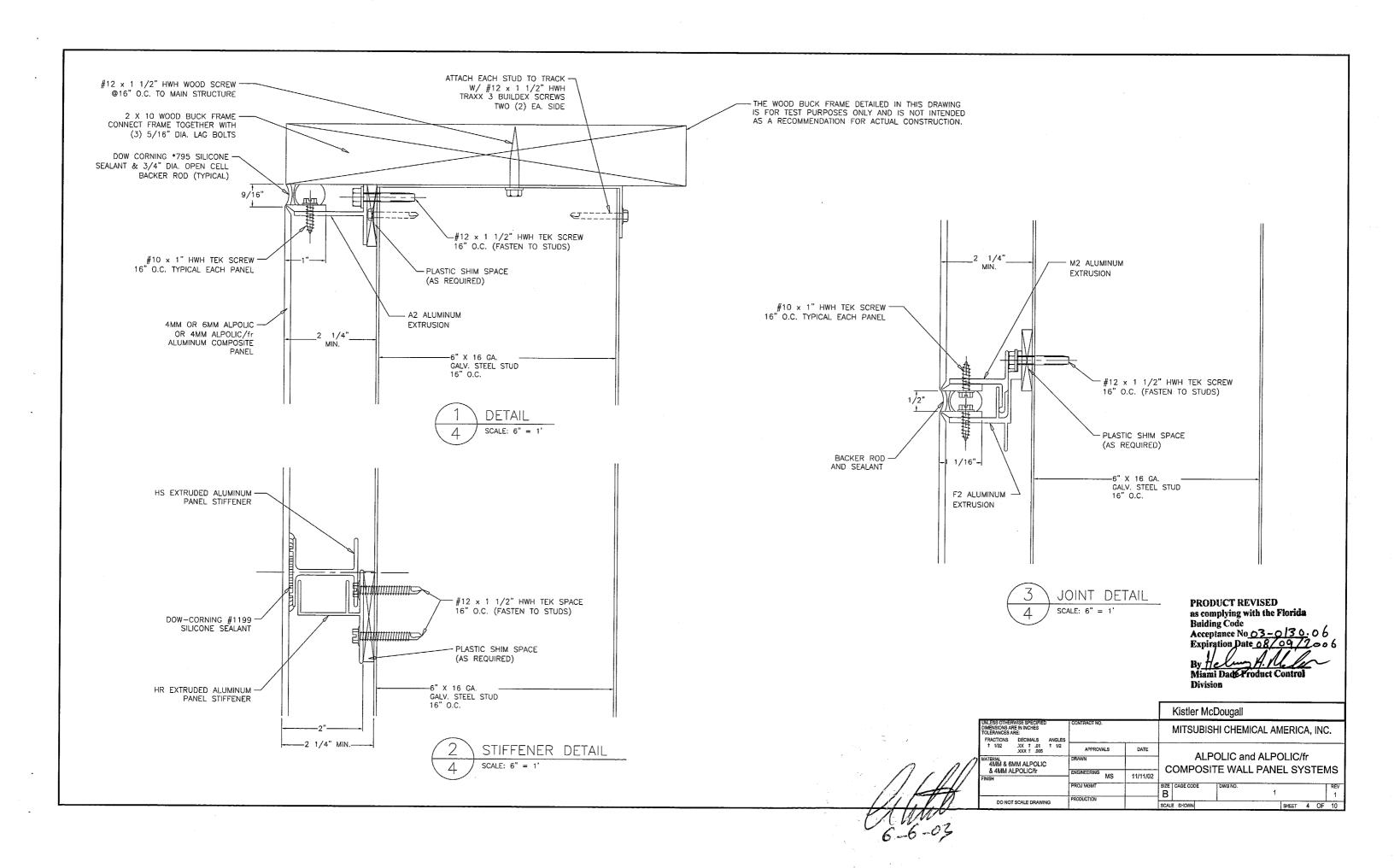
6-6-03

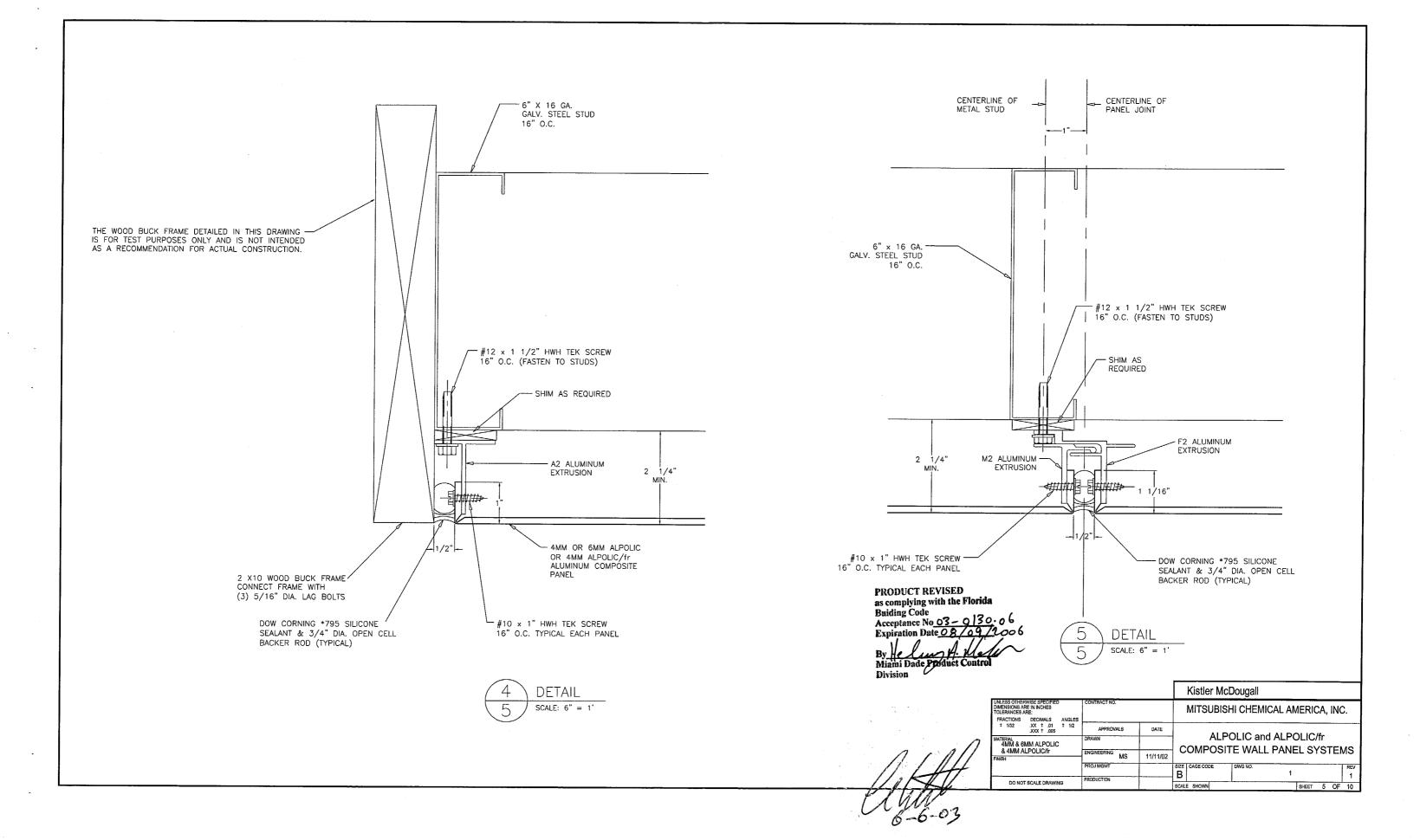
| | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: | | CONTRACT NO. | | MITSUBISHI CHEMICAL AMERICA, INC. | | | | | | |
|---|---|-------|----------------|-------------|-----------------------------------|------|-----------|---------|-----|--|-----|
| î | FRACTIONS DECIMALS ANGLES ± 1/32 .XX ± .01 ± 1/2 | | 1 | - | | | | | - | | |
| | .XXX ± .005 | - 1/2 | APPROVALS | DATE | ALDOLIC and ALDOLIC/fr | | | | | | |
| | MATERIAL | DRAWN | | | ALPOLIC and ALPOLIC/fr | | | | | | |
| | FINISH | | ENGINEERING | ļ | COMPOSITE WALL PANEL SYST | | | STEN | FMS | | |
| | | | ENGINEERING MS | 11/11/02 | | | | | | | |
| | ŀ | | | PROJ MGMT | | SIZE | CAGE CODE | DWG NO. | | | REV |
| | ļ | | | DESCRIPTION | | ↓B | ŀ | | 1 | | |

SCALE

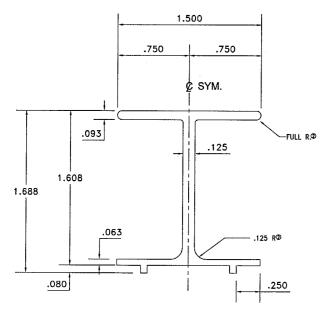








HS



BREAK CORNERS .015 R

EXCEPT AS NOTED

ACTUAL SIZE

DIE DATA

EST. AREA: .430 EST. WEIGHT: .516 DIE SIZE: 6

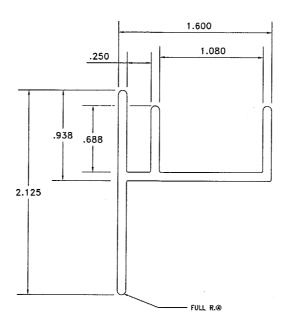
EST. PERI.:

NO. HOLES: 1 EXT. LENGTH: 5 1/8" = 1 @ 35'

FACTOR:

R/R:

 $\underline{\mathsf{HR}}$



BREAK CORNERS .015 R .090 TYPICAL METAL THICKNESS ACTUAL SIZE

DIE DATA

EST. AREA: .465 EST. WEIGHT: .558 DIE SIZE: 6

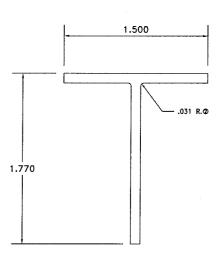
R/R

EST. PERI.:

NO. HOLES: 1 EXT. LENGTH: 5 1/8 = 1 @ 36'

FACTOR:

<u>A2</u>



BREAK CORNERS .010 R
.100 WALL THICK TYPICAL
ACTUAL SIZE

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 03 - 0130
Expiration Date 08/09/20

Miami Dado Product Control

DIE DATA

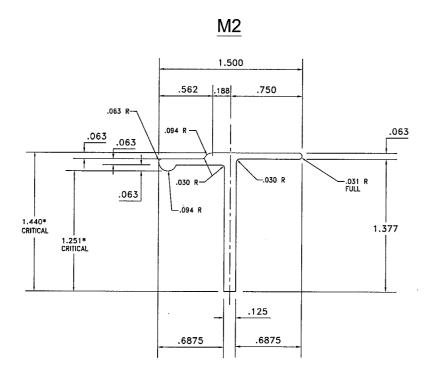
EST. AREA: .317 EST. WEIGHT: .380 DIE SIZE: 6 NO. HOLES: 1

EST. PERI.: 6.54 FACTOR: 17 EXT. LENGTH:

R/R: 5 1/8 = 1 @ 53'

| | • | | Kistler McDougall | | | |
|---|----------------|----------|--|------------|--|--|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: | CONTRACT NO. | | MITSUBISHI CHEMICAL AMERICA, INC |) . | | |
| FRACTIONS DECIMALS ANGLES | | | | | | |
| † 1/32 XX † .01 † 1/2 XXX † .005 | APPROVALS | DATE | AL DOLLO AL DOLLO /5- | | | |
| MATERIAL 4MM & 6MM ALPOLIC | DRAWN | | ALPOLIC and ALPOLIC/fr COMPOSITE WALL PANEL SYSTEMS | | | |
| & 4MM ALPOLIC/fr | ENGINEERING MS | 11/11/02 | | | | |
| | PROJ MGMT | | SIZE CAGE CODE DWG NO. | Ri | | |
| | PRODUCTION | | B 1 | . (| | |
| DO NOT SCALE DRAWING | | | SCALE SHEET 6 OF | 11 | | |

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ACTUAL SIZE BREAK SHARP CORNERS .005 R

DIE DATA

EST. AREA: .275 DIE SIZE: 6

EST. WEIGHT: .330

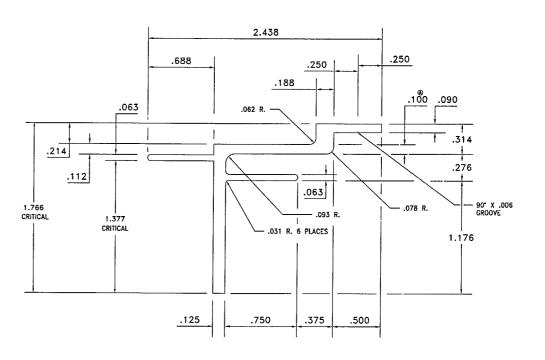
NO. HOLES: 1

EST. PERI.: 5.831

FACTOR: 18

EXT. LENGTH: 4 1/2 = 1- 46' R/R: 5 1/8" = 1- 62'

F2



ACTUAL SIZE BREAK SHARP CORNERS .010R

DIE DATA

EST. AREA: .484 EST. WEIGHT: .581

DIE SIZE: 6 NO. HOLES: 1

EST. PERI.: 9.900

FACTOR: 17 R/R

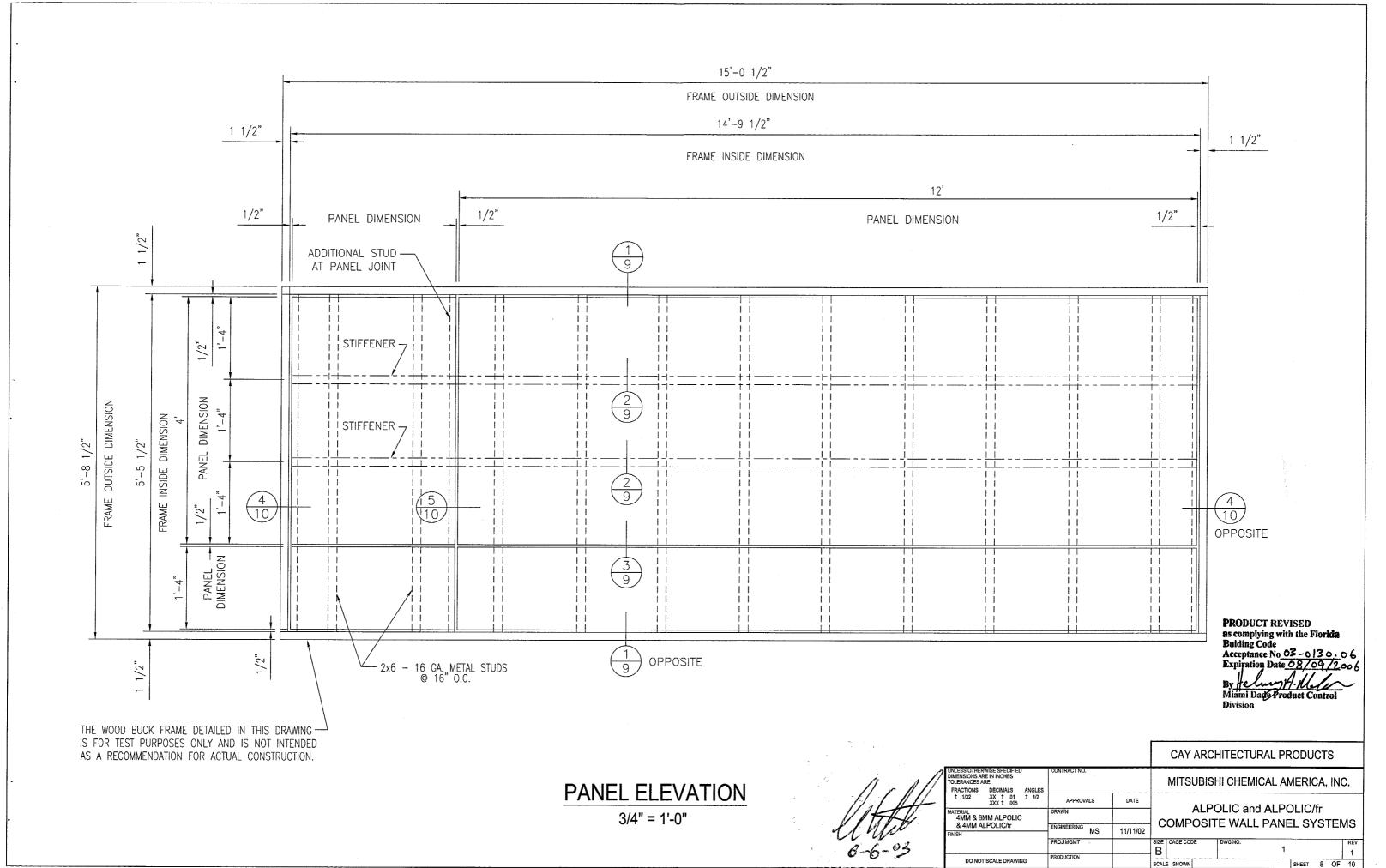
EXT. LENGTH: 5 1/8 = 1@34

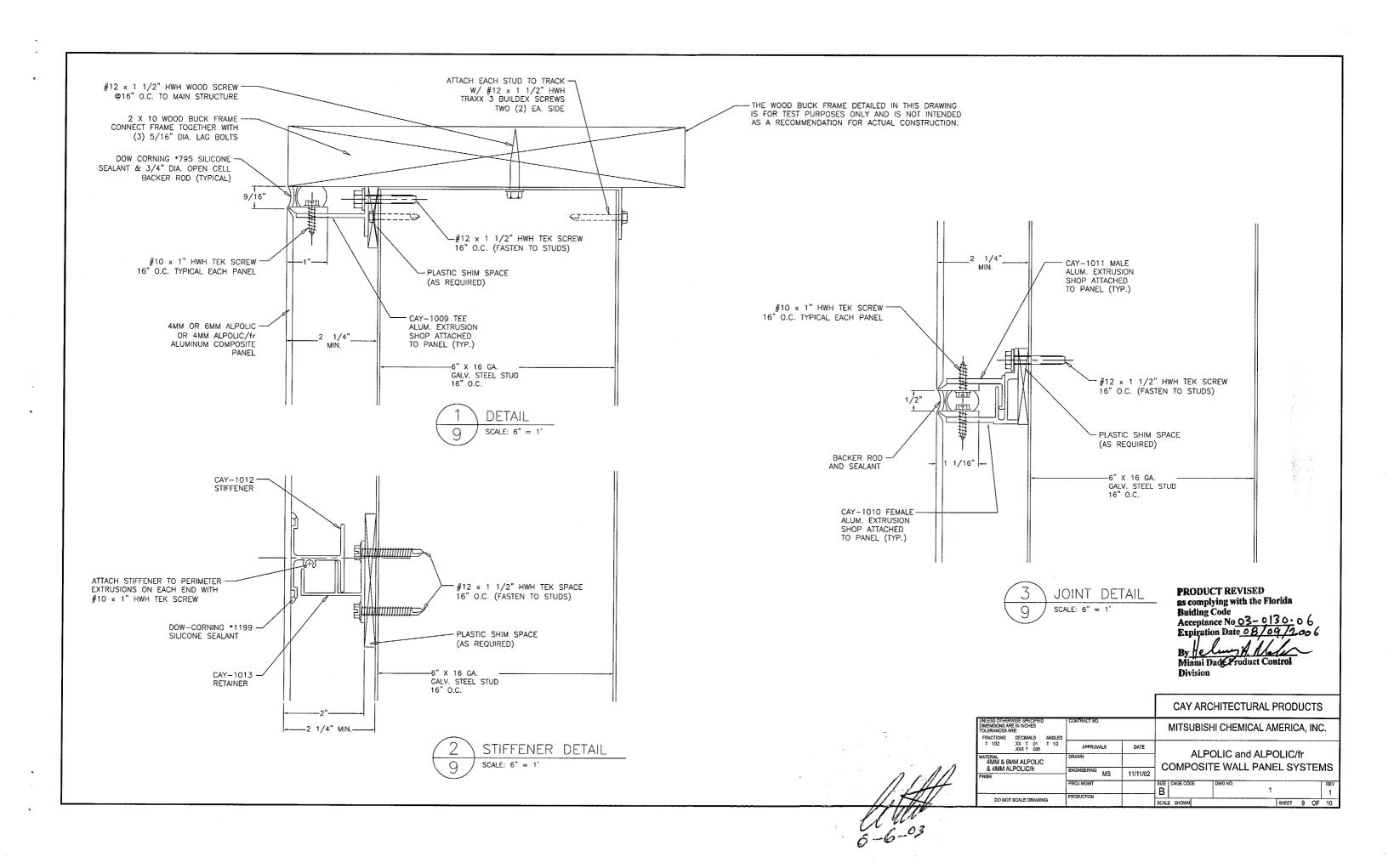
Kistler McDougall MITSUBISHI CHEMICAL AMERICA, INC. DATE ALPOLIC and ALPOLIC/fr COMPOSITE WALL PANEL SYSTEMS DO NOT SCALE DRAWING

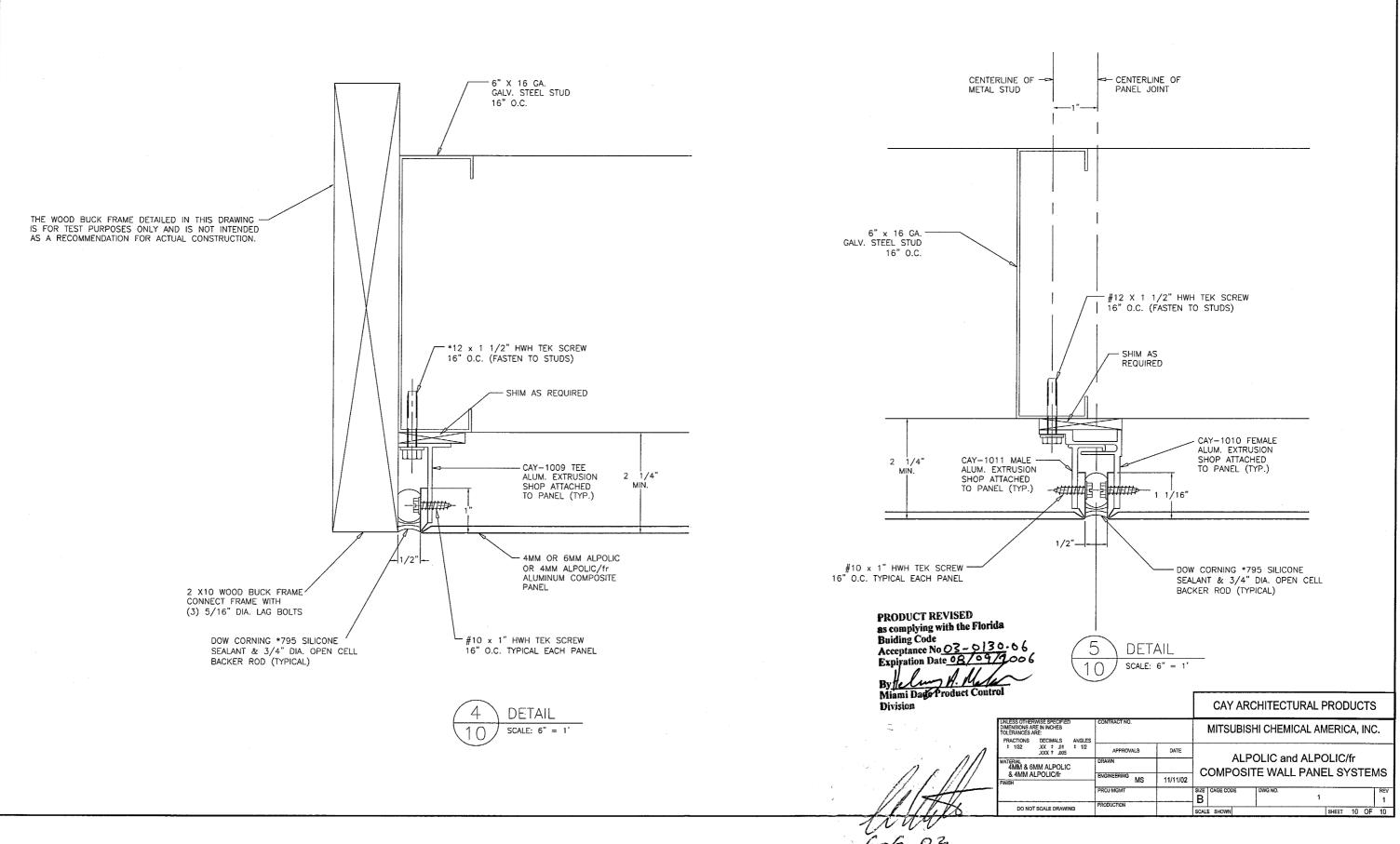
PRODUCT REVISED as complying with the Florida Building Code

Division

Expiration Date 08/09/2006







6-6-03